

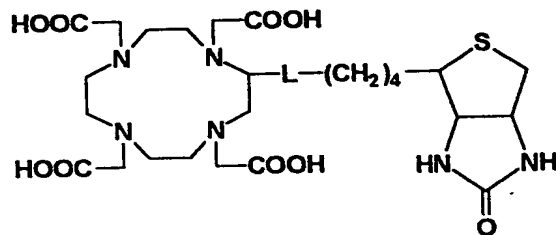
WHAT IS CLAIMED IS:

1. A method of increasing active agent localization at a target cell site of a mammalian recipient, which method comprises:

administering to the recipient a first conjugate comprising a targeting moiety and streptavidin;

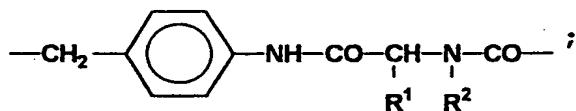
allowing an amount of time to pass that is sufficient for localization of the first conjugate to the target site;

subsequently administering to the recipient a second conjugate comprising an active agent and biotin, wherein the second conjugate localizes to target site-localized first conjugate, and wherein the second conjugate comprises a biotin-DOTA compound of the following formula:

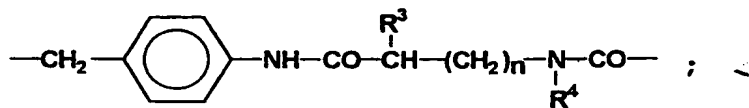


and further wherein a linker L is selected from the group comprising:

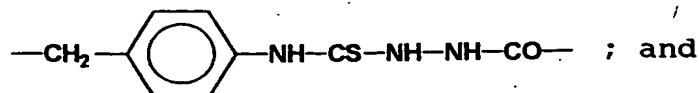
- 1) a D-amino acid-containing linker of the formula



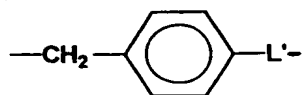
- 2) a linker of the formula



- 3) a linker of the formula



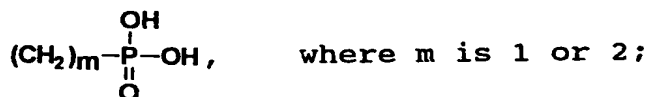
4) a linker of the formula



, wherein L' is selected from the group comprising:

- a) $-\text{NH}-\text{CO}-(\text{CH}_2)_n-\text{O}-$;
- b) $-\text{NH}-$;
- c) $-\text{NH}-\text{CO}-\text{CH}_2-\underset{\text{R}'}{\text{N}}-\text{R}''-$;
- d) $-\text{NH}-\text{CS}-\text{NH}-$; and
- e) $-\text{NH}-\text{CO}-(\text{CH}_2)_n-\text{NH}-$,

wherein R' is hydrogen, lower alkyl; lower alkyl substituted with one or more hydrophilic groups including $(\text{CH}_2)_m-\text{OH}$, $(\text{CH}_2)_m-\text{OSO}_3$, $(\text{CH}_2)_m-\text{SO}_3$, and

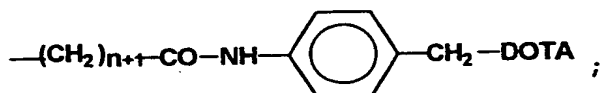


glucuronide-substituted amino acids; or other glucuronide derivatives;

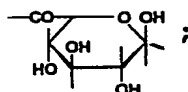
R² is hydrogen; lower alkyl; substituted lower alkyl having one or more substituents selected from the group comprising hydroxy, sulfate, and phosphonate; or a hydrophilic moiety;

R³ is hydrogen; an amine; a lower alkyl; a hydroxy-, sulfate- or phosphonate-substituted lower alkyl; a glucuronide; or a glucuronide-derivatized amino acid;

R⁴ is hydrogen, lower alkyl or

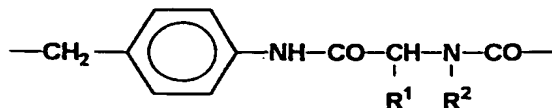


R' is hydrogen; $-(\text{CH}_2)_2-\text{OH}$ or a sulfate or phosphonate derivative thereof; or



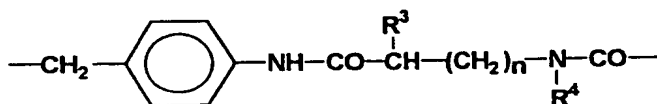
R'' is a bond or $-(\text{CH}_2)_n-\text{CO}-\text{NH}-$; and n ranges from 0-5.

2. A method of claim 1 wherein L is a D-amino acid-incorporating linker of the formula



3. A method of claim 2 wherein R¹ is CH₃ and R² is H.

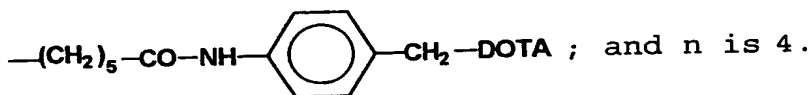
4. A method of claim 1 wherein L is a linker of the formula



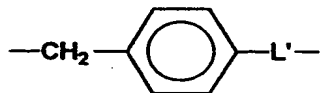
5. A method of claim 4 wherein R³ is hydrogen; R⁴ is CH₃; and n is 4.

6. A method of claim 4 wherein R³ is hydrogen; R⁴ is CH₃; and n is 0.

7. A method of claim 4 wherein R³ is hydrogen; R⁴ is



8. A method of claim 1 wherein L is a linker of the formula



, wherein L' is selected from the group comprising:

- a) $\text{---NH---CO---(CH}_2\text{)}_n\text{---O---}$;
- b) ---NH--- ;
- c) $\text{---NH---CO---CH}_2\text{---N(R}^1\text{)---R''---}$;
- d) $\text{---NH---CS---NH---}$; and
- e) $\text{---NH---CO---(CH}_2\text{)}_n\text{---NH---}$ or a bis-DOTA derivative thereof.

9. A method of claim 1 wherein the first conjugate is administered at a substantially tumor saturating dose.

10. A method of claim 1 wherein the second conjugate is administered intraarterially or intralesionally.

11. A method of claim 10 wherein the second conjugate is administered via an artery supplying target tissue.

12. A method of claim 10 wherein the second conjugate is administered via an artery selected from the group consisting of hepatic artery, carotid artery, bronchial artery and renal artery.

13. A method of claim 1 wherein the second conjugate is administered intravenously.

14. A method of claim 1 wherein the targeting moiety is an oligonucleotide, a peptide, a polypeptide, a monoclonal antibody, a monovalent fragment thereof.

15. A method of claim 14 wherein the monoclonal antibody is a human, a humanized or a chimeric monoclonal antibody.